51310



Single direction thrust ball bearing

Single direction thrust ball bearings can accommodate axial loads in one direction. They must not be subjected to any radial load. Their separable components facilitate mounting/dismounting and maintenance inspections. Many of the components are interchangeable. The shaft washers have a ground bore that enables an interference fit.

- Separable design facilitates mounting/dismounting and maintenance inspections
- Interchangeable components
- Ground bore of shaft washers enable interference fit

Overview

Dimensions

Bore diameter	50 mm
Outside diameter	95 mm
Thickness	31 mm

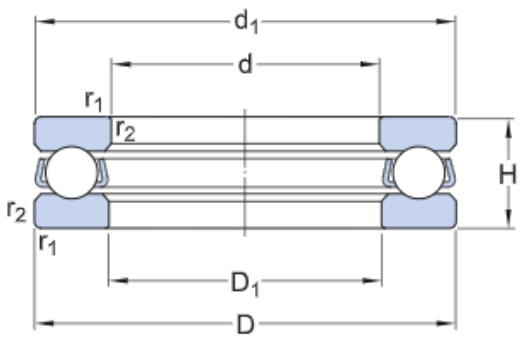
Performance

Basic dynamic load rating	81.9 kN
Basic static load rating	170 kN
Limiting speed	3 600 r/min
Reference speed	2 600 r/min

Properties

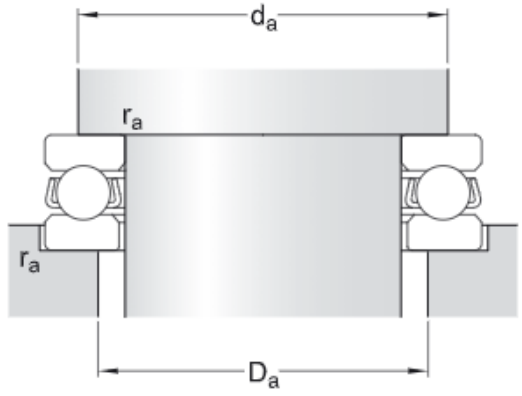
Axial load capability	Single-direction
Cage	Sheet metal
Coating	Without
Housing washer type	Flat
Material, bearing	Bearing steel
Number of rows	1
Tolerance class	Normal

Technical Specification



Dimensions

d	50 mm	Bore diameter
D	95 mm	Outside diameter
H	31 mm	Height
d_1	≈ 95 mm	Outside diameter shaft washer
D_1	≈ 52 mm	Inner diameter housing washer
$r_{1,2}$	min. 1.1 mm	Chamfer dimension washer



Abutment dimensions

d_a	min. 77 mm	Abutment diameter shaft
D_a	max. 68 mm	Abutment diameter housing
r_a	max. 1 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	81.9 kN
Basic static load rating	C_0	170 kN
Fatigue load limit	P_u	6.3 kN
Reference speed		2 600 r/min
Limiting speed		3 600 r/min
Minimum load factor	A	0.19

Mass

Mass bearing (including seat washer where applicable)	0.94 kg

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